

IN THE CLAIMS:

Please CANCEL claims 9 and 21 without prejudice to or disclaimer of the recited subject matter.

Please AMEND claims 8 and 15, as follows. For the Examiner's convenience, all claims currently pending are reproduced below.

1-7. (Canceled)

8. (Currently Amended) A refrigerant supply apparatus for supplying a refrigerant to a cooling target, the apparatus comprising:

a refrigerant supply channel through which pure water as the refrigerant is supplied to the cooling target;

an impurity removing unit disposed in an impurity removing channel which is a channel different from said refrigerant supply channel;

a sensor which measures a purity of the pure water; and

a valve which stops supply of the pure water to the cooling target when the purity of the pure water does not satisfy a predetermined standard;

a first pump provided to said refrigerant supply channel; and

a second pump provided to said impurity removing channel,

wherein said first and second pumps are controlled independently of each other,

such that said first pump is stopped when the purity of the pure water does not satisfy the

predetermined standard, and that said second pump is stopped when the purity of the pure water satisfies the predetermined standard.

9. (Canceled)

10. (Original) The apparatus according to claim 8, wherein said sensor includes a resistivity sensor.

11. (Original) The apparatus according to claim 8, wherein said sensor includes a dissolved oxygen sensor.

12-14. (Canceled)

15. (Currently Amended) A device manufacturing apparatus comprising:

a driving section which generates heat;

a refrigerant supply channel through which pure water as a refrigerant is supplied to a cooling section that cools said driving section;

a sensor which is disposed in said refrigerant supply channel and measures a purity of the pure water; and

a controller which controls supply of the pure water to said cooling section on the basis of the purity of the pure water measured by said sensor;

a first pump provided to said refrigerant supply channel; and  
a second pump provided to an impurity removing channel,  
wherein said first and second pumps are controlled independently of each other,  
such that said first pump is stopped when the purity of the pure water does not satisfy the  
predetermined standard, and that said second pump is stopped when the purity of the pure water  
satisfies the predetermined standard.

16. (Original) The apparatus according to claim 15, wherein said controller stops supply of the pure water to said cooling section when the purity of the pure water does not satisfy a predetermined standard.

17. (Original) The apparatus according to claim 15, wherein said sensor includes a resistivity sensor.

18. (Original) The apparatus according to claim 15, wherein said sensor includes a dissolved oxygen sensor.

19. (Original) The apparatus according to claim 15, further comprising an impurity removing unit which removes impurities in the pure water.

20. (Original) The apparatus according to claim 19, wherein said impurity removing unit is disposed in an impurity removing channel which is a channel different from said refrigerant supply channel.

21. (Canceled)

22. (Original) The apparatus according to claim 19, wherein said impurity removing unit is disposed in a branch channel of said refrigerant removing channel.

23. (Original) The apparatus according to claim 19, wherein said impurity removing unit includes at least one of an ion exchange resin, active carbon, a filtration film, a reverse osmosis film, a distillation unit, and a deaeration film.

24. (Original) The apparatus according to claim 15, further comprising a germicidal lamp which sterilizes the pure water.

25. (Original) The apparatus according to claim 15, further comprising a pure water tank which stores the pure water, wherein an upstream side of said refrigerant supply channel is connected to said pure water tank.

26. (Original) The apparatus according to claim 25, wherein a lower portion of said pure water tank has a tapered shape.

27. (Original) The apparatus according to claim 25, further comprising an oxygen removing mechanism which removes dissolved oxygen in the pure water by supplying an inert gas into said pure water tank.

28. (Original) The apparatus according to claim 27, wherein said oxygen removing mechanism supplies the inert gas into the pure water in said pure water tank.

29. (Original) The apparatus according to claim 15, further comprising a temperature adjustment unit which adjusts a temperature of the pure water.

30. (Original) The apparatus according to claim 15, which is formed as an exposure apparatus.

31. (Original) A device manufacturing method including a step of processing a substrate using the device manufacturing apparatus according to claim 15.

32. (Original) A device manufacturing method including steps of:

transferring a pattern to a substrate with the device manufacturing apparatus  
according to claim 30; and  
developing the substrate.